

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MULTI-CORE TRANSFORMER PLASMA SOURCE** the specification of which was filed on April 20, 2001 as Application No. 09/839,360.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

| Country | Application No. | Date of Filing | Priority Claimed Under 35 USC 119 |
|---------|-----------------|----------------|--------------------------------------|
| | - | | |

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filing Date |
|-----------------|-------------|
| | |

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| Application No. | Date of Filing | Status |
|-----------------|----------------|--------|
| | | |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

| | |
|----------------------|-------------------------|
| Peter J. Sgarbossa | Registration No. 25,610 |
| Joseph Bach | Registration No. 37,771 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| Robert W. Mulcahy | Registration No. 25,436 |
| Robert C. Colwell | Registration No. 27,431 |
| William L. Shaffer | Registration No. 37,234 |
| Chun-Pok Leung | Registration No. 41,405 |
| Patrick R. Jewik | Registration No. 40,456 |

Kent J. Tobin
Patrick M. Boucher

Registration No. 39,496
Registration No. 44,037

Send correspondence to:

Direct telephone calls to:

Patent Counsel, MS/2061
Legal Affairs Dept.
Applied Materials, Inc.
P.O. Box 450A
Santa Clara, CA 95052

Patrick M. Boucher
303-571-4000

Full name of first inventor: Canfeng Lai
Inventor's signature: [Signature]
Citizenship: Peoples Republic of China
United State

Date: 5/27/03

Full name of second inventor: Michael S. Cox
Inventor's signature: _____
Citizenship: United States

Date: _____

Full name of third inventor: Peter K. Loewenhardt
Inventor's signature: _____
Citizenship: Canada

Date: _____

Full name of fourth inventor: Tsutomu Tanaka
Inventor's signature: _____
Citizenship: Japan

Date: _____

Full name of fifth inventor: Shamouil Shamouilian
Inventor's signature: _____
Citizenship: United States

Date: _____

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MULTI-CORE TRANSFORMER PLASMA SOURCE** the specification of which was filed on April 20, 2001 as Application No. 09/839,360.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

| Country | Application No. | Date of Filing | Priority Claimed Under 35 USC 119 |
|---------|-----------------|----------------|--------------------------------------|
| | - | | |

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filing Date |
|-----------------|-------------|
| | |

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| Application No. | Date of Filing | Status |
|-----------------|----------------|--------|
| | | |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

| | |
|----------------------|-------------------------|
| Peter J. Sgarbossa | Registration No. 25,610 |
| Joseph Bach | Registration No. 37,771 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| Robert W. Mulcahy | Registration No. 25,436 |
| Robert C. Colwell | Registration No. 27,431 |
| William L. Shaffer | Registration No. 37,234 |
| Chun-Pok Leung | Registration No. 41,405 |
| Patrick R. Jewik | Registration No. 40,456 |

Kent J. Tobin
Patrick M. Boucher

Registration No. 39,496
Registration No. 44,037

Send correspondence to:

Direct telephone calls to:

Patent Counsel, MS/2061
Legal Affairs Dept.
Applied Materials, Inc.
P.O. Box 450A
Santa Clara, CA 95052

Patrick M. Boucher
303-571-4000

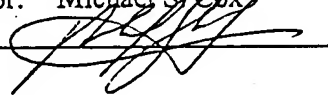
Full name of first inventor: Canfeng Lai

Inventor's signature: _____

Citizenship: Peoples Republic of China

Date: _____

Full name of second inventor: Michael S. Cox

Inventor's signature: 

Citizenship: United States

Date: 06-05-03

Full name of third inventor: Peter K. Loewenhardt

Inventor's signature: _____

Citizenship: Canada

Date: _____

Full name of fourth inventor: Tsutomu Tanaka

Inventor's signature: _____

Citizenship: Japan

Date: _____

Full name of fifth inventor: Shamouil Shamouilian

Inventor's signature: _____

Citizenship: United States

Date: _____

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MULTI-CORE TRANSFORMER PLASMA SOURCE** the specification of which was filed on April 20, 2001 as Application No. 09/839,360.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

| Country | Application No. | Date of Filing | Priority Claimed Under 35 USC 119 |
|---------|-----------------|----------------|--------------------------------------|
| | - | | |

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filing Date |
|-----------------|-------------|
| | |

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| Application No. | Date of Filing | Status |
|-----------------|----------------|--------|
| | | |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

| | |
|----------------------|-------------------------|
| Peter J. Sgarbossa | Registration No. 25,610 |
| Joseph Bach | Registration No. 37,771 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| Robert W. Mulcahy | Registration No. 25,436 |
| Robert C. Colwell | Registration No. 27,431 |
| William L. Shaffer | Registration No. 37,234 |
| Chun-Pok Leung | Registration No. 41,405 |
| Patrick R. Jewik | Registration No. 40,456 |

Kent J. Tobin
Patrick M. Boucher

Registration No. 39,496
Registration No. 44,037

Send correspondence to:

Direct telephone calls to:

Patent Counsel, MS/2061
Legal Affairs Dept.
Applied Materials, Inc.
P.O. Box 450A
Santa Clara, CA 95052

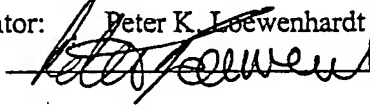
Patrick M. Boucher
303-571-4000

Full name of first inventor: Canfeng Lai
Inventor's signature: _____
Citizenship: Peoples Republic of China

Date: _____

Full name of second inventor: Michael S. Cox
Inventor's signature: _____
Citizenship: United States

Date: _____

Full name of third inventor: Peter K. Loewenhardt
Inventor's signature: 
Citizenship: Canada

Date: 8/15/2003

Full name of fourth inventor: Tsutomu Tanaka
Inventor's signature: _____
Citizenship: Japan

Date: _____

Full name of fifth inventor: Shamouil Shamouilian
Inventor's signature: _____
Citizenship: United States

Date: _____

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MULTI-CORE TRANSFORMER PLASMA SOURCE** the specification of which was filed on April 20, 2001 as Application No. 09/839,360.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

| Country | Application No. | Date of Filing | Priority Claimed Under 35 USC 119 |
|---------|-----------------|----------------|-----------------------------------|
| | | | |

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filing Date |
|-----------------|-------------|
| | |

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| Application No. | Date of Filing | Status |
|-----------------|----------------|--------|
| | | |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

| | |
|----------------------|-------------------------|
| Peter J. Sgarbossa | Registration No. 25,610 |
| Joseph Bach | Registration No. 37,771 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| Robert W. Mulcahy | Registration No. 25,436 |
| Robert C. Colwell | Registration No. 27,431 |
| William L. Shaffer | Registration No. 37,234 |
| Chun-Pok Leung | Registration No. 41,405 |
| Patrick R. Jewik | Registration No. 40,456 |

Kent J. Tobin
Patrick M. Boucher

Registration No. 39,496
Registration No. 44,037

Send correspondence to:

Direct telephone calls to:

Patent Counsel, MS/2061
Legal Affairs Dept.
Applied Materials, Inc.
P.O. Box 450A
Santa Clara, CA 95052

Patrick M. Boucher
303-571-4000

Full name of first inventor: Canfeng Lai

Inventor's signature: _____

Citizenship: Peoples Republic of China

Date: _____

Full name of second inventor: Michael S. Cox

Inventor's signature: _____

Citizenship: United States

Date: _____

Full name of third inventor: Peter K. Loewenhardt

Inventor's signature: _____

Citizenship: Canada

Date: _____

Full name of fourth inventor: Tsutomu Tanaka

Inventor's signature: 

Citizenship: Japan

Date: June 2, 2003

Full name of fifth inventor: Shamouil Shamouilian

Inventor's signature: _____

Citizenship: United States

Date: _____

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SUPPLEMENTAL DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **MULTI-CORE TRANSFORMER PLASMA SOURCE** the specification of which was filed on April 20, 2001 as Application No. 09/839,360.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56. I claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

| Country | Application No. | Date of Filing | Priority Claimed Under 35 USC 119 |
|---------|-----------------|----------------|--------------------------------------|
| | - | | |

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filing Date |
|-----------------|-------------|
| | |

I claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| Application No. | Date of Filing | Status |
|-----------------|----------------|--------|
| | | |

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

| | |
|----------------------|-------------------------|
| Peter J. Sgarbossa | Registration No. 25,610 |
| Joseph Bach | Registration No. 37,771 |
| Donald Verplancken | Registration No. 33,217 |
| Lawrence Edelman | Registration No. 25,226 |
| Raymond Kam-On Kwong | Registration No. 37,165 |
| James C. Wilson | Registration No. 35,412 |
| Robert W. Mulcahy | Registration No. 25,436 |
| Robert C. Colwell | Registration No. 27,431 |
| William L. Shaffer | Registration No. 37,234 |
| Chun-Pok Leung | Registration No. 41,405 |
| Patrick R. Jewik | Registration No. 40,456 |

Kent J. Tobin
Patrick M. Boucher

Registration No. 39,496
Registration No. 44,037

Send correspondence to:

Direct telephone calls to:

Patent Counsel, MS/2061
Legal Affairs Dept.
Applied Materials, Inc.
P.O. Box 450A
Santa Clara, CA 95052

Patrick M. Boucher
303-571-4000

Full name of first inventor: Canfeng Lai
Inventor's signature: _____
Citizenship: Peoples Republic of China

Date: _____

Full name of second inventor: Michael S. Cox
Inventor's signature: _____
Citizenship: United States

Date: _____

Full name of third inventor: Peter K. Loewenhardt
Inventor's signature: _____
Citizenship: Canada

Date: _____

Full name of fourth inventor: Tsutomu Tanaka
Inventor's signature: _____
Citizenship: Japan

Date: _____

Full name of fifth inventor: Shamouil Shamouilian
Inventor's signature: _____
Citizenship: United States

Date: 6/23/03

Shamouil Shamouilian

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JULY 18, 2001

PTAS

APPLIED MATERIALS, INC.
ROBERT W. MULCAHY
PATENT COUNSEL LEGAL AFFAIRS DEPARTMENT
P.O. BOX 450A, M/S 2061
SANTA CLARA, CALIFORNIA 95052



101702581A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

REC'D JUL 24 2001

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/20/2001

REEL/FRAME: 011753/0518
NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

LAI, CANFENG

DOC DATE: 04/12/2001

ASSIGNOR:

COX, MICHAEL S.

DOC DATE: 04/16/2001

ASSIGNOR:

LOEWENHARDT, PETER K.

DOC DATE: 04/10/2001

ASSIGNOR:

TANAKA, TSUTOMU

DOC DATE: 04/16/2001

ASSIGNOR:

SHAMOUILIAN, SHAMOUIL

DOC DATE: 04/12/2001

ASSIGNEE:

APPLIED MATERIALS, INC.
P.O. BOX 450A
LEGAL AFFAIRS DEPARTMENT
SANTA CLARA, CALIFORNIA 95052

COMPUTER ENTERED

JUL 25 2001

BEST AVAILABLE COPY

011753/0518 PAGE 2

SERIAL NUMBER: 09839360
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

SAUNDRA BALLENGER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

BEST AVAILABLE COPY

BEST AVAILABLE

05-07-2001

FORM PTO-1619A
Expires 06/30/99
OMB NO. 51-0027

101702581

RECORDATION FORM COVER SHEET
PATENTS ONLYU.S. Department of Commerce
Patent and Trademark Office
PATENT11017 U.S. PTO
09/03/96
04/20/01

Attorney Docket No.

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

☒ New☐ Resubmission (Non-Recordation)

Document ID #

☐ Correction of PTO Error

Reel #

Frame #

☐ Corrective Document

Reel #

Frame #

Conveyance Type

☒ Assignment☐ License☐ Merger☐ Security Agreement☐ Change of Name☐ Other

U.S. Government

(For Use ONLY by U.S. Government Agencies)

☐ Departmental File☐ Secret File

Conveying Party(ies)

☒ Mark if additional names of conveying parties attached

Name (line 1) Canfeng Lai

Execution Date
Month Day Year

4-12-01

Name (line 2)

Second Party

Name (line 1) Michael S. Cox

Execution Date
Month Day Year

4-16-01

Name (line 2)

Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) Applied Materials, Inc.

Name (line 2)

Address (line 1) Legal Affairs Department

Address (line 2) P.O. Box 450A

Address (line 3) Santa Clara

California

95052

City

State/Country

Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

FOR OFFICE USE ONLY

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0851-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

05/04/2001 5TDN11 00000130 501074 09839360

01 FC:581

40.00 CH

ABLE COPY

BEST AVAILABLE COPY

FORM PTO-1619C
Expires 06/30/99
OMR 0651-0077

RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT

11017 U.S. PTO
09/03/01
04/20/01

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1) Peter K. Loewenhardt

Execution Date
Month Day Year

4 - 10 - 01

Name (line 2)

Execution Date

Month Day Year

Name (line 1) Tsutomu Tanaka

4 - 16 - 01

Name (line 2)

Execution Date

Month Day Year

Name (line 1) Shamoull Shamoulian

4 - 12 - 01

Name (line 2)

Receiving Party(ies)

☐ Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

| | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |

PA 3136597 v1

BEST AVAILABLE COPY

BEST AVAILABLE COPY

| | | | |
|--|--|--|-----|
| Page 2 | | U.S. Department of Commerce Patent and Trademark Office PATENT | |
| FORM PTO-1619B Expires 06/30/99 OMB 0651-0027 | | | |
| Correspondent Name and Address | | Area Code and Telephone Number (650) 326-2400 | |
| Name Patent Counsel | | | |
| Address (line 1) APPLIED MATERIALS, INC. | | | |
| Address (line 2) Legal Affairs Department | | | |
| Address (line 3) P.O. Box 450A, M/S 2061 | | | |
| Address (line 4) Santa Clara, California 95052 | | | |
| Pages | | Enter the total number of pages of the attached conveyance document including any attachments # 13 | |
| Application Number(s) or Patent Number(s) <input type="checkbox"/> Mark If additional numbers attached. <small>Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).</small> | | | |
| Patent Application Number(s) | | Patent Number(s) | |
| 09/839360 | | | |
| | | | |
| | | | |
| | | | |
| If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year | | | |
| | | | |
| Patent Cooperation Treaty (PCT) | | | |
| Enter PCT application number only if a U.S. Application Number has not been assigned. | | PCT | PCT |
| | | PCT | PCT |
| Number of Properties | | | |
| Enter the total number of properties involved. | | # 1 | |
| Fee Amount | | | |
| Fee Amount for Properties Listed (37 CFR 3.41): | | \$ 40.00 | |
| Method of Payment: Enclosed <input type="checkbox"/> Deposit Account <input checked="" type="checkbox"/> | | | |
| Deposit Account | | | |
| Enter for payment by deposit account or if additional fees can be charged to the account.) | | # 50-1074 | |
| Deposit Account Number: | | | |
| Authorization to charge additional fees: | | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Statement and Signature | | | |
| To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein. | | | |
| Robert W. Mulcahy Attorney Reg. No. 25,436 | | 4/20/01 | |
| Name of Person Signing | | Signature | |
| | | Date | |

BEST AVAILABLE COPY

Attorney Docket No.: A5152/T39500
 AMAT No.: 005152/PDD/CORE DCVD/JW
 TTC No.: 016301-039500US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
 of Inventors:

| | | | |
|----|--|----|--|
| 1) | Canfeng (Ken) Lai, Ph.D 47615 Hoyt Street Fremont, CA 94539 United States | 2) | Michael S. Cox 40 Center Street Davenport, CA 95017 United States |
| 3) | Peter K. Loewenhardt 5602 Selena Ct Pleasanton, CA 94566 United States | 4) | Tsutomu Tanaka 744 Nicholson Avenue Santa Clara, CA 95051 United States |
| 5) | Shamouil Shamouilian 6536 Little Falls Drive San Jose, CA 95120 United States | | |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

MULTI-CORE TRANSFORMER PLASMA SOURCE

for which application for Letters Patent in the United States was filed on Herewith, under Application No. Unassigned, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings

BEST AVAILABLE COPY

involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) April 12, 2001


Canfeng Lai

2) _____, 2001

Michael S. Cox

3) _____, 2001

Peter K. Loewenhardt

4) _____, 2001

Tsutomu Tanaka

5) _____, 2001

Shamouil Shamouilian

PA 3136592 v1

Attorney Docket No.: A5152/T39500
 AMAT No.: 005152/PDD/CORE DCVD/JW
 TTC No.: 016301-039500US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
 of Inventors:

| | | | |
|----|--|----|--|
| 1) | Canfeng (Ken) Lai, Ph.D 47615 Hoyt Street Fremont, CA 94539 United States | 2) | Michael S. Cox 40 Center Street Davenport, CA 95017 United States |
| 3) | Peter K. Loewenhardt 5602 Selenia Ct Pleasanton, CA 94566 United States | 4) | Tsutomu Tanaka 744 Nicholson Avenue Santa Clara, CA 95051 United States |
| 5) | Shamouil Shamouilian 6536 Little Falls Drive San Jose, CA 95120 United States | | |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

MULTI-CORE TRANSFORMER PLASMA SOURCE

for which application for Letters Patent in the United States was filed on Herewith, under Application No. Unassigned, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings

involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) _____, 2001

Canfeng Lai

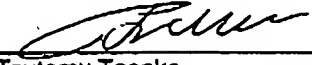
2) _____, 2001

Michael S. Cox

3) _____, 2001

Peter K. Loewenhardt

4) April 16, 2001


Tsutomu Tanaka

5) _____, 2001

Shamouil Shamouilian

PA 3136592 v1

Attorney Docket No.: A5152/T39500
 AMAT No.: 005152/PDD/CORE DCVD/JW
 TTC No.: 016301-039500US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
 of Inventors:

| | | | |
|----|--|----|--|
| 1) | Canfeng (Ken) Lai, Ph.D 47615 Hoyt Street Fremont, CA 94539 United States | 2) | Michael S. Cox 40 Center Street Davenport, CA 95017 United States |
| 3) | Peter K. Loewenhardt 5602 Selenia Ct Pleasanton, CA 94566 United States | 4) | Tsutomu Tanaka 744 Nicholson Avenue Santa Clara, CA 95051 United States |
| 5) | Shamouil Shamouilian 6536 Little Falls Drive San Jose, CA 95120 United States | | |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

MULTI-CORE TRANSFORMER PLASMA SOURCE

for which application for Letters Patent in the United States was filed on Herewith, under Application No. Unassigned, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings

BEST AVAILABLE COPY

involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

| | | | |
|----|---------|------|----------------------|
| 1) | _____ | 2001 | Canfeng Lai |
| 2) | 4/16/01 | 2001 | Michael S. Cox |
| 3) | _____ | 2001 | Peter K. Loewenhardt |
| 4) | _____ | 2001 | Tsutomu Tanaka |
| 5) | _____ | 2001 | Shamouil Shamouilian |

PA 3136592 v1

Attorney Docket No.: A5152/T39500
 AMAT No.: 005152/PDD/CORE DCVD/JW
 TTC No.: 016301-039500US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
 of Inventors:

| | | | |
|----|--|----|--|
| 1) | Canfeng (Ken) Lai, Ph.D 47615 Hoyt Street Fremont, CA 94539 United States | 2) | Michael S. Cox 40 Center Street Davenport, CA 95017 United States |
| 3) | Peter K. Loewenhardt 5602 Selena Ct Pleasanton, CA 94566 United States | 4) | Tsutomu Tanaka 744 Nicholson Avenue Santa Clara, CA 95051 United States |
| 5) | Shamouil Shamouillan 6536 Little Falls Drive San Jose, CA 95120 United States | | |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

MULTI-CORE TRANSFORMER PLASMA SOURCE

for which application for Letters Patent in the United States was filed on Herewith, under Application No. Unassigned, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings

BEST AVAILABLE COPY

involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

| | |
|-----------------------|------------------------------|
| 1) _____, 2001 | _____ |
| | Canfeng Lai |
| 2) _____, 2001 | _____ |
| | Michael S. Cox |
| 3) _____, 2001 | _____ |
| | Peter K. Loewenhardt |
| 4) _____, 2001 | _____ |
| | Tsutomu Tanaka |
| 5) <u>4/12</u> , 2001 | <u>Shamouli / Shamoulian</u> |
| | Shamouli Shamoulian |

PA 3136592 v1

Attorney Docket No.: A5152/T39500
 AMAT No.: 005152/PDD/CORE DCVD/JW
 TTC No.: 016301-039500US

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses
 of Inventors:

| | | | |
|----|--|----|--|
| 1) | Canfeng (Ken) Lai, Ph.D 47615 Hoyt Street Fremont, CA 94539 United States | 2) | Michael S. Cox 40 Center Street Davenport, CA 95017 United States |
| 3) | Peter K. Loewenhardt 5602 Selena Ct Pleasanton, CA 94566 United States | 4) | Tsutomu Tanaka 744 Nicholson Avenue Santa Clara, CA 95051 United States |
| 5) | Shamouil Shamouilian 6536 Little Falls Drive San Jose, CA 95120 United States | | |

(hereinafter referred to as Assignors), have invented a certain invention entitled:

MULTI-CORE TRANSFORMER PLASMA SOURCE

for which application for Letters Patent in the United States was filed on Herewith, under Application No. Unassigned, executed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings

involving said Invention, and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted hereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) _____, 2001

Canfeng Lai

2) _____, 2001

Michael S. Cox

3) April 10, 2001

Peter K. Loewenhardt

4) _____, 2001

Tsutomu Tanaka

5) _____, 2001

Shamouil Shamouilian

PA 3136592 v1